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Peter Clive Bridges

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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
300 S. WACKER DRIVE
32ND FLOOR
CHICAGO, IL 60606

EXAMINER

OSTRUP, CLINTON T

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/511,766
Filing Date: October 19, 2004
Appellant(s): BRIDGES ET AL.

A. Blair Hughes
For Appellant

EXAMINER'S ANSWER

This is in response to the Appeal Brief filed September 8, 2009 appealing from the Office action mailed December 17, 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The Appellant's statement of the status of amendments after final rejection contained in the brief is incorrect. The after-final amendment filed on April 7, 2009 has not been entered. The after-final amendment filed on February 17, 2009 has been entered.

(5) Summary of Claimed Subject Matter

The summary of the claimed subject matter contained in the brief is substantially correct.

However, the Examiner disagrees with Appellant's presenting the "seal adapted to seal against the periphery of a user's face when worn" as claimed in claim 1 to be a "gasket" or a "sealing means" as referred to as reference character (6) in their specification. Appellant's specification specifically refers to a seal as reference character (12). See: page 4, lines 19-22 of Appellant's specification.

Although the examiner agrees that a “gasket” or “sealing means” can be used to form a seal, they are not a “seal”. As presented by the examiner in the Advisory Action mailed March 3, 2009, Webster's New World Dictionary, Third College Edition. Defines a gasket as a "piece of ring of rubber, metal, paper, etc. placed at a joint to make it leakproof." Thus, Webster's New World Dictionary clearly describes how a gasket is used to form a seal, not that a gasket is a seal.

Moreover, claim 1 does not require a "gasket" or a "sealing means" which are “adapted to seal against the periphery of the user’s face when worn”. Claim 1 merely requires a “seal adapted to seal against the periphery of the user’s face when worn.”

As can be clearly seen in Appellant’s specification reference character (6) corresponds to a “gasket”, not a “seal”. See: page 4, lines 2, 7, 25, & 27 and page 5, lines 10 & 14.

The summary of the additional claimed subject matter is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The Appellant’s statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Appellant’s brief presents arguments relating to the Objection to the Specification as failing to provide proper antecedent basis for the claimed subject matter. This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. See MPEP § 1002 and § 1201.

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

The rejection of claim 5 as being rejected under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. US 2,861,568 in view of Tischer et al. US 6,328,031 B1 has been withdrawn based upon an alternative reading of the references.

NEW GROUND(S) OF REJECTION

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. US 2,861,568 in view of Tischer et al. US 6,328,031 B1, based upon an alternative reading of the references, as described below.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

2,861,568	QUILTER et al.	11-1958
6,328,031	TISCHER et al.	12-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 & 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. US 2,861,568 in view of Tischer et al. US 6,328,031 B1.

As to claim 1, Quilter in his specification and drawings discloses a respirator assembly comprising: a first sub-assembly (15) adapted to be worn on the head (see fig.2) and including a seal (13) adapted to seal against the periphery of the user's face when worn (see col.2, lines 26-36).

Quilter further discloses a second sub-assembly (fig. 9 reference numbers 26 & 64), however Quilter lacks the second sub-assembly (fig.9, reference numbers 26 & 64) separable from the first sub-assembly but selectively co-operable therewith.

However, Tischer in a protective head gear teaches a first subassembly (fig.13, reference number 113) and a second subassembly (fig.13, reference number 112) that are detachably connected to each other (see col.6, lines 10-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Quilter in order to make the subassemblies separable for the purposes of preventing direct exposure of wearer's head to high heat environment as taught by Tischer (see col.2, lines 35-40).

Quilter additionally discloses the second sub-assembly comprising a face piece adapted to co-operate with the first sub-assembly to define therewith a facial cavity (space between the seal 13 and the mask 64, see fig.9, see also "dead space" in col.6, lines 3-6, which reads on "facial cavity") bounded by said seal (see fig.9), an inlet (68) connectable to a source of breathing gas for supply to the user and an outlet (67) for the exhaustion of exhaled gas from the user.

As to claim 2, Tischer in figure 13 shows that the first and second sub-assemblies can be completely separable, thus allowing the first sub-assembly to be worn alone. Tischer in figure 12 shows the second sub-assembly being demountably attachable to the first sub-assembly.

As to claim 3, Quilter discloses the first sub-assembly comprises headgear (15) including a substantially rigid ring (25) structure adapted to be juxtaposed to the user's face (see fig.9) when the headgear is donned and from which said seal extends to engage around the periphery of the user's face (see fig.97), the second sub-assembly being configured to be mounted to said ring structure (see fig.9, reference number 26 connecting 25). Quilter however lacks at least one releasable fastener. However, Tischer teaches a face (fig.3 reference number 58) and hood (fig.3 reference number 30) assembly that can be joined by a releasable fastener (fig.3 reference number 62).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Quilter in order to add a releasable fastener for the purposes of allowing separable connection between the two sub-assemblies as taught by Tischer.

As to claim 4, Quilter discloses the second sub-assembly is articulated to the first sub-assembly (see fig.9).

As to claim 6, Quilter discloses the second sub-assembly includes an oronasal mask (64) to be disposed within said facial cavity.

As to claim 7, Quilter discloses said face piece includes a lens portion (26), Quilter however lacks "demountable" lens. However, Tischer teaches detachable face-piece as applied for claim 1. Tischer teaches the face-piece (112) has a clear plastic face plate (114) (see col.6 lines 20 and 21). Tischer's face plate is equivalent to a lens portion since the clear plastic

construction of the face plate (114) would inherently allow wearer to see through the face plate (114). Thus, Tischer further teaches demountable lens.

NEW GROUND(S) OF REJECTION

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. US 2,861,568 in view of Tischer et al. US 6,328,031 B1, as applied to claim 1 above, and further in view of an alternative reading of the references as noted below.

Regarding claim 5, Quilter discloses the first sub-assembly comprises headgear in the form of a flexible hood of and specifically teaches a pressure retaining outer skin or cover (15), also made of flexible and gas-proof material such as sheet rubber or plastic, for, example polyvinyl chloride, reinforced with nylon, cotton or other fabric so as to withstand internal pressure and to protect the inner skin (11), surrounds the latter, so that the re-entrant beaded edges (13) are exposed to the oxygen pressure inside the helmet. See: col. 2, lines 32-39.

Only the inner skin and outer skin or covering (15) of Quilter is described as "impervious to oxygen" or "gas-proof" material and the reinforcing materials taught by Quilter, nylon and cotton (20), are air permeable materials. These materials (20) form part of the headgear (figures 1-2 and 9-10) in the form of a flexible hood. Thus, the fabric (nylon & cotton) specifically disclosed by Quilter is a part of the headgear in the form of a flexible hood (figures 1-2 and 9-10) of air permeable material. Thus, Quilter teaches using a first sub-assembly comprising at least a portion of a headgear in the form of a flexible hood of an air-permeable material.

Moreover, Tischer specifically teaches forming a head portion of a knitted or woven heat and flame resistant aramid material. See: col. 4, lines 3-11 of Tischer.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the head portion of Quilter with a knitted or woven heat and flame resistant material, as taught by Tischer, in order to protect a pilot or a firefighter from fire and heat in high heat environment. For example, a fiery plane crash or a structure fire that a firefighter would be called to extinguish.

(10) Response to Argument

Appellant's arguments filed February 26, 2008 have been fully considered but they are not persuasive.

In regard to Appellant's arguments relating to the Objection to the Specification as failing to provide proper antecedent basis for the claimed subject matter. This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter and therefore should not be considered by the Board. See MPEP § 1002 and § 1201.

Appellant's arguments to the rejection of claims 1-4 & 6-7 under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. (US 2,861,568) in view of Tischer et al. (US 6,328,03) have not been found convincing.

Appellant's argument that the motivation for combining the references is flawed has not been found convincing. Appellant argues that the examiner's grounds for combining the various elements of the prior art reference is based upon a misinterpretation of the cited Tischer et al. teaching and that "The examiner has failed to establish a prima facie case of obviousness at least because the cited motivation for combining the references is irrational."

First, the examiner has not misinterpreted the teachings of Tischer. As described by Appellant, the subassemblies of Tischer are "detachable" and that in use "there must be a sealed

connection between the sub-assemblies to exclude the hot environment.” See: last paragraph of page 10 to first paragraph of page 11 of the Appeal Brief. Appellant concludes that this would suggest that Quilter should not be modified because it is already sealed. However, the examiner respectfully disagrees.

As noted in the Advisory Action mailed March 9, 2009, it has been held that "the separation of elements, where removability would be desirable, is a design consideration within the skill of the art. In re *Dulberg*, 283 F. 2d 522, 129 USPQ 348 (CCPA 1961).

In the instant case, Tischer clearly teaches the desirability of separable elements that can be detachably connected and continue to operate in a manner that prevents exposure of the user to a high heat environment. See: col. 2, lines 35-39 of Tischer.

Moreover, a common sense reading of Quilter in view of Tischer would clearly suggest a hood that would be donned by the user (pilot or firefighter), without the face mask being attached until a user (pilot or firefighter) is in a high heat (or potentially high heat) environment (e.g. just prior to take off wherein a pilot could be exposed to a fiery crash or just prior to a firefighter battling a fire).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Quilter in order to make the subassemblies separable for the purposes of preventing direct exposure of wearer's head to high heat environment as taught by Tischer (see col.2, lines 35-40).

Appellant's argument that the cited references teach away from their combination has not been found convincing. Simply that there are differences between two references is insufficient to

establish that such references "teach away" from any combination thereof. *In re Beattie*, 974 F.2d 1309, 1312-13, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992).

Appellant argues that it would not be obvious to one of ordinary skill in the art to combine the references in the manner suggested because the purposes of the Tischer and Quilter devices are quite different as Tischer is used to provide as a fire fighting hood and face mask assembly which simplifies and speeds the donning of the hood and mask and which reduces the risk of injury to the firefighter while **permitting the hood to be quickly and easily detached from the face mask to facilitate cleaning and/or replacement of the hood**; and, the device of Quilter is not at all concerned with a high heat environment. (Emphasis Added). Appellant concludes that it would be entirely contrary to the teaching of Quilter to modify the structure to make these components separable as one skilled in the art at the time of the invention would understand that the best way for a wearer of the Quilter device to prevent exposure of one's head to a high heat environment would be to keep the entire Quilter device on.

It should be remembered that the rejection is based on the combination of Quilter in view of Tischer. One having ordinary skill in the art would readily recognize the benefits of modifying the helmet for aviators, as disclosed by Quilter, to have separate components that when combined together form a fully functional hood that would prevent direct exposure of wearer's head to high heat environment as taught by Tischer (see col.2, lines 35-40).

Since, a common sense reading of Quilter in view of Tischer would clearly suggest a hood that would be donned by the user (pilot or firefighter), without the face mask being attached until a user (pilot or firefighter) is in a high heat (or potentially high heat) environment

(e.g. just prior to take off wherein a pilot could be exposed to a fiery crash or just prior to a firefighter battling a fire).

Both references are drawn to oxygen delivery systems to be used during low oxygen concentrations and it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Quilter in order to make the subassemblies separable for the purposes of preventing direct exposure of wearer's head to high heat environment as taught by Tischer (see col.2, lines 35-40).

Therefore, Appellants arguments have not been found convincing and the rejection has been MAINTAINED.

Appellant's arguments to the rejection of claim 5 under 35 U.S.C. 103(a) as being unpatentable over Quilter et al. (US 2,861,568) in view of Tischer et al. (US 6,328,03), based on an alternative reading of the references, have not been found convincing.

Appellant argues that claim 5 is independently patentable because the prior art does not disclose a respirator assembly where "the first sub-assembly comprises headgear in the form of a flexible hood of air-permeable material" and that the examiner has mistakenly asserted that Quilter discloses the claimed feature and in particular Quilter's disclosure of "other fabric" at column 2, line 36 of Quilter.

Quilter only discloses the skin (11) and outer skin or covering (15) as "impervious to oxygen" or "gas-proof" material and the reinforcing materials taught by Quilter, nylon and cotton (20), are air permeable materials. These materials (20) form part of the headgear (See: figures 1-2 and 9-10) in the form of a flexible hood. Thus, the fabric (nylon & cotton) specifically disclosed by Quilter is a part of the headgear in the form of a flexible hood (figures 1-2 and 9-10)

of air permeable material. Thus, Quilter teaches using a first sub-assembly comprising at least a portion of a headgear in the form of a flexible hood of an air-permeable material.

Moreover, the rejection is based on the combination of references and Tischer specifically teaches forming a head portion of a knitted or woven heat and flame resistant aramid material (See: col. 4, lines 3-11 of Tischer). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the head portion of Quilter with a knitted or woven heat and flame resistant material, as taught by Tischer, in order to protect a pilot or a firefighter from fire and heat in high heat environment. For example, a fiery plane crash or a structure fire that a firefighter would be called to extinguish.

Therefore, Appellants arguments have not been found convincing and the rejection has been MAINTAINED.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Clinton Ostrup/
Examiner, Art Unit 3771

Conferees:

/Patricia Bianco/

Supervisory Patent Examiner, Art Unit 3772

/Janet C. Baxter/
TC 3700 TQAS